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Serotonin Modulation of Premotor Interneuron Excitability in the Snail during Associative Learning

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Abstract

© 2016, Springer Science+Business Media New York.It is shown that after the elaboration of a conditioned reflex in snails, a reliable decrease can be observed in the membrane potential (Vm) of the premotor interneurons at 4 mV, daily injection of serotonin (5-HT) causes a decrease in Vm at 4.5 mV, the same change is observed for Vm in the snails trained after the injection of 5-HT. A single injection of 5-HT causes a depolarization shift of Vm at 5 mV. After the initial stage of training (10–12 pairs) the snails, injected by 5-HT, there is a depolarization at 4.5 mV.

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Keywords

Identified neurons, Learning, Membrane potential, Serotonin, Snail